



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/810,278	03/26/2004	Mutsuro Ohta	16869Q-106700US	8548

20350 7590 07/26/2006

TOWNSEND AND TOWNSEND AND CREW, LLP  
TWO EMBARCADERO CENTER  
EIGHTH FLOOR  
SAN FRANCISCO, CA 94111-3834

EXAMINER

EVANS, JEFFERSON A

ART UNIT	PAPER NUMBER
----------	--------------

2627

DATE MAILED: 07/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.



Claims 1 to 17 are pending.

***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Specification***

2. The title of the invention is not adequately descriptive. A new title is required that is more clearly indicative of the invention to which the claims are directed by making reference to the use of eddy-current to release the actuator.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 4, 9, 10, and 14-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Chew (U.S. 6,462,913). A rotary disk storage device (figure 5) comprising: a housing A,B; a rotary disk recording medium D having a recording area, at least a partial area of the recording medium being formed of an electrically conductive material (column 3 – lines 44 to 52); an actuator suspension assembly 10 to which a head/slider is attached and which includes a voice coil motor (column 2 – line 30), said actuator suspension assembly being adapted to operate in such a manner that

Art Unit: 2627

said head/slider moves between a retracted position and said recording area centrally about a pivot shaft supported by said housing (column 2 – lines 25 to 35); an eddy-current magnet 13c disposed in proximity to a surface of the area of said rotary disk recording medium which area is formed of the electrically conductive material, said eddy-current magnet having a magnetic pole opposed to a surface of said rotary disk recording medium; and a movable structure 13 which releases said actuator suspension assembly restrained in said retracted position, said release being carried out by utilizing a force of an eddy current exerted on said eddy-current magnet which eddy current is produced in said rotary disk recording medium by said magnetic pole (column 3 – lines 44 to 52). The latch shaft is depicted but not separately labeled. Latch member includes latching portion 13b.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2, 3, 5, 8, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chew.

**As per Claim 2**

Chew establishes that the actuator is latched in a particular position to protect it and other components of the disk drive, but does not disclose having the disk drive

Art Unit: 2627

include a ramp to which the head/slider is retracted in establishing the particular position at which the actuator is latched.

Official Notice is given that it was notoriously old and well known in the art at the time the invention was made to utilize a ramp for lifting a head/slider away from a disk when the head/slider is retracted during a period when the head/slider is not engaged in transducing operations.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide Chew with a ramp for lifting a head/slider away from a disk when the head/slider is retracted during a period when the head/slider is not engaged in transducing operations. The motivation would have been: providing such a ramp was well established for moving the head/slider away from the disk to prevent the head/slider and disk bouncing against each other during the shocks or vibrations and by doing so prevent damage to the head/slider or disk.

As per Claim 3: Chew establishes that the actuator is latched in a particular position to protect it and other components of the disk drive, but does not disclose having the disk include a landing zone to which the head/slider is retracted in establishing the particular position at which the actuator is latched.

Official Notice is given that it was notoriously old and well known in the art at the time the invention was made to utilize a disk landing zone when the head/slider is retracted during a period when the head/slider is not engaged in transducing operations.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide Chew with a disk landing zone for when the head/slider

Art Unit: 2627

is retracted during a period when the head/slider is not engaged in transducing operations. The motivation would have been: providing such a landing zone was well established for moving the head/slider away from the recordable part of the disk to prevent the contact between the head/slider and disk from damaging the recordable part of the disk.

As per Claims 5 and 8

Chew does not expressly disclose that the latch member being spring biased towards the latched position.

Official Notice is given that it was notoriously old and well known in the art to spring bias an actuator latch towards the latched position.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the latch member of Chew be spring biased towards the latched position. The motivation would have been: to do so helped ensure proper latching and that release of the latched status only occurs when it is supposed to.

As per Claim 12

Chew does not disclose whether for the embodiment of figure 5 the eddy-current magnet is opposed to recordable or non-recordable portions of the disk, or both, as the latch member moves between latch and release positions.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the eddy-current magnet of Chew be opposite non-recordable portions of the disk. The motivation would have been: Chew makes a point for the first embodiment of his invention that the eddy-current magnet is far enough from

Art Unit: 2627

the disk(s) not to erase data. In the embodiment of figure 5 the eddy-current magnet is positioned adjacent the surface of the disk to interact directly with the disk. The portion of the disk the eddy current magnet would be next to would be fully expected by one of ordinary skill in the art to be a non-recordable portion because otherwise – the data recorded on the disk could be destroyed by the magnet which would run counter to the basic function of a disk drive.

***Allowable Subject Matter***

7. Claim 6, 7, 11, 13, and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jefferson A. Evans whose telephone number is 571-272-7574. The examiner can normally be reached on Monday to Friday, 9:00am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Thi Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jefferson A. Evans  
Primary Examiner  
Art Unit 2627

**JEFFERSON EVANS  
PRIMARY EXAMINER**

*JE*  
7/23/06